

Headquarters U.S. Air Force

Integrity - Service - Excellence

RC-135S Cobra Ball



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45 RS/DOS
8 Sept 17
Version 1



Introduction

- **History**
- **Missions**
- **Aircraft Overview**
- **Crew Composition**
- **Strengths**
- **Challenges**

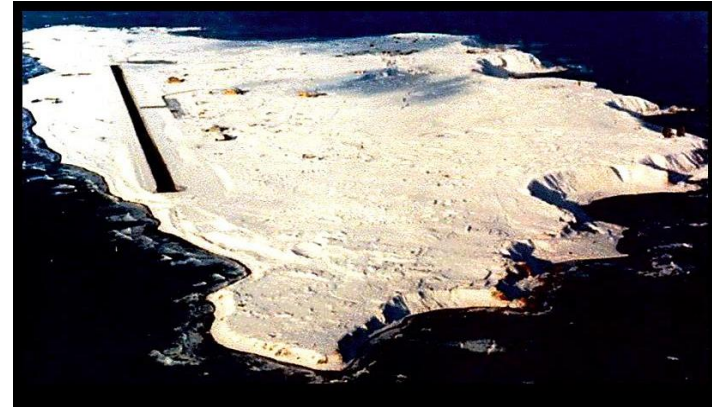




History

- **NANCY RAE (1961-1966)**
 - Created to Collect Intelligence from Soviet Missile Tests
 - Stationed on 24-hour alert on Shemya AFB

- **WANDA BELLE (1966)**
 - Redesignated RC-135S





History

- **RIVET BALL (1966-1969)**
 - **First Photographic Evidence of Soviet Multiple Reentry Vehicle Testing in October 1968**

- **RIVET AMBER (1963-1969)**
 - **Could Track an Object the Size of a Soccer Ball at 300 Miles**





History

- **COBRA BALL (1969-Present)**
 - **3 Aircraft in USAF Inventory**
- **COBRA EYE (1989-1993)**
 - **Converted to an Additional Cobra Ball in 1993**
- **Transferred to the Offutt AFB, NE in 1994**





Missions

- **Collect Optical and Electronic Data on Ballistic Targets**
- **U.S. Strategic Defense and Theater Missile Defense**
- **Treaty Verification**





Missions

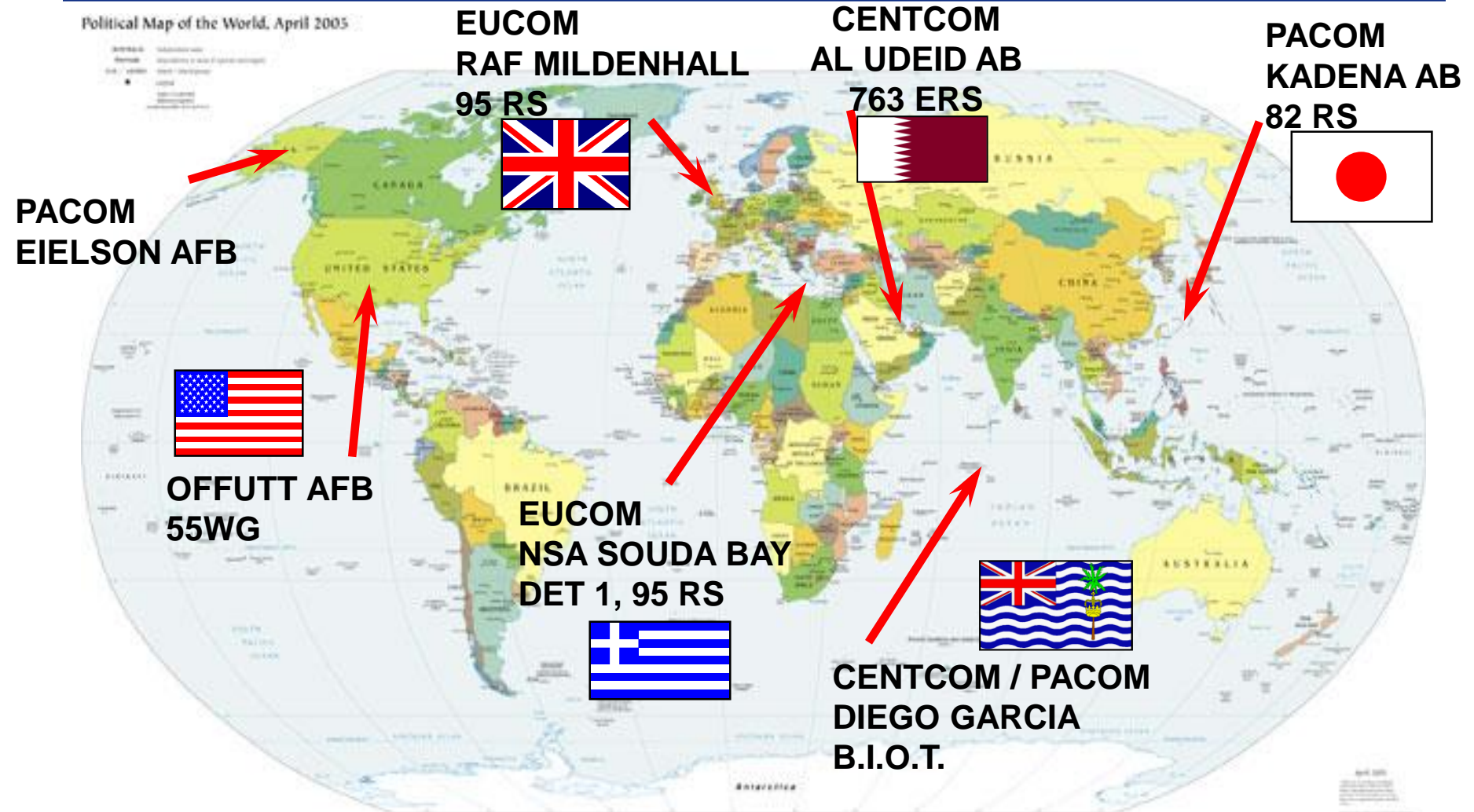
- Initially employed by Strategic Air Command to satisfy nationally tasked intelligence collection requirements
- Participated in Operations Enduring Freedom and Iraqi Freedom.





Operating Locations

Political Map of the World, April 2005



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Aircraft Overview

- **Date Deployed: 1969 (CBI)**
- **Inventory: 3**
- **Contractor: L-3 Communications**
- **Power Plant: Four CFM Int. F108-CF-201 turbofan engines**
- **Range: 3,900 mi**
- **Max T/O Wt: 297K lbs**
- **Speed: Mach .66**
- **Length: 135 ft**
- **Height: 42 ft**
- **Wingspan: 131 ft**





Crew Composition

- 2 Pilots
- 1 Navigators
- 3 Electronic Warfare Officers
- 2 Airborne System Engineers
- 2 Operator Positions
- 1 Tactical Coordinator

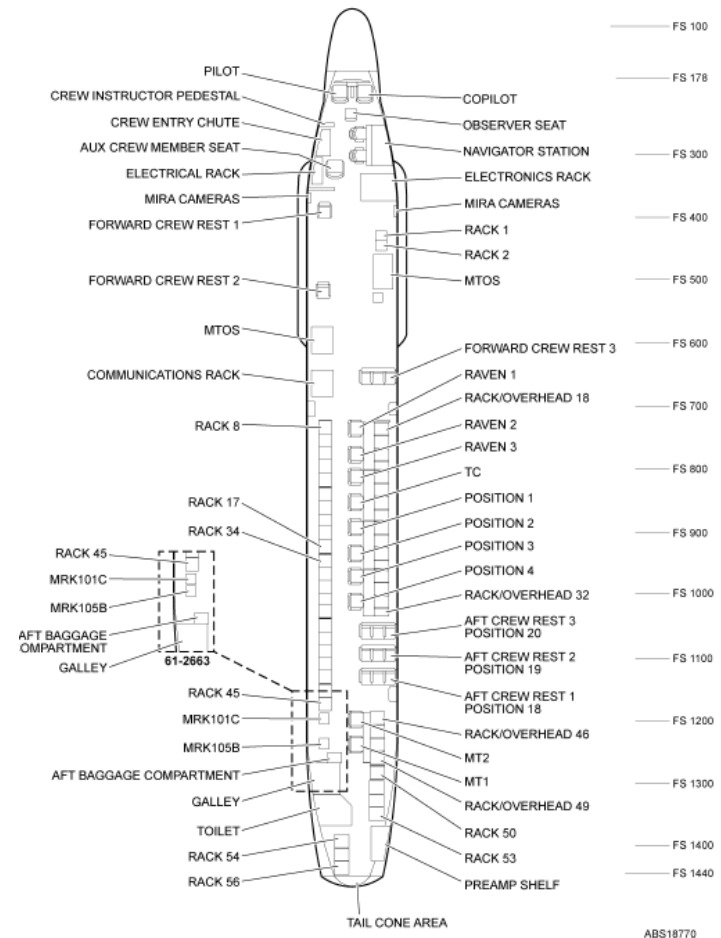
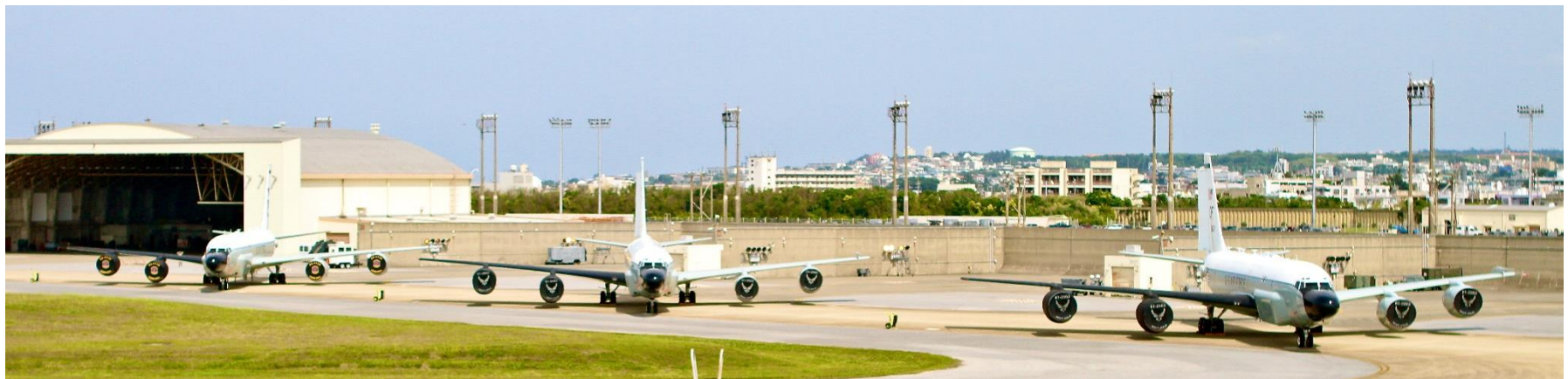


Figure 1-2. Aircraft Interior Arrangement



Strengths

- Rapidly deployable for Joint Chiefs of Staff directed missions
- Proximity and vantage point enable collection of data unavailable to other reconnaissance assets
- Uniquely equipped to provide America's leaders with vital information that cannot be obtained by any other source.
- Critical to Arms Treaty Compliance Verification



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Challenges

- **Back End Training**
 - Unique equipment and mission set would require a dedicated simulator which currently does not exist
 - High ops tempo limits jet availability for training
- **Data Delivery**
 - There is a need for a reliable and secure way to deliver large data sets from various international locations in a short period of time
 - Security requirements of existing AF Networks are cumbersome and inflexible, with lengthy approval periods for changes.
- **Systems Transition**
 - Modernization of mission systems necessitate a shift in procedures which there is no way to test or simulate.
 - During the transition, individual jets have different equipment and crew training requirements, making logistics a significant challenge



Summary

- History
- Missions
- Aircraft Overview
- Crew Composition
- Strengths
- Challenges





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■ Questions?



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